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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,609	09/06/2000	Avneesh Agrawal	PA000442	9036

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

NGUYEN, BRIAN D

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/655,609

Applicant(s)

AGRAWAL ET AL.

Examiner

Brian D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the application filed 9/6/2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6 and 9-24 is/are rejected.
- 7) ☒ Claim(s) 2,4,5,7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. Page 7, line 31, "a multiplier 328" should be changed to ---a multiplier 330a---. In line 32, "a multiplier 330" should be changed to ---a multiplier 332b---.
3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

4. The drawings are objected to because in Figure 5, "SF=5" is a typographical error, it should be changed to ---SF=8---. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

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"antennas 304" in line 20 of page 6 and lines 7 & 17 of page 8 and "a finger element 800" in line 18 of page 14. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

6. The information disclosure statement filed 5/1/02 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 3, 14-16 and 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "W-CDMA standard". It is not clear what version of the W-CDMA the applicant is referring to. The W-CDMA standard is changing from time to time.

Claim 14 recites the limitation "the actual OVSF code" in line 2. There is insufficient antecedent basis for this limitation in the claim.

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Claim 15 recites the limitation "the pilot symbols" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites the limitation "the pilot processor" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the partially processed symbols" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites the limitation "the memory unit" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1, 6, 9-14, 17-20, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Dahlman et al (6,222,875).

Regarding claims 1, 17, Dahlman discloses a method for recovering data transmitted on a physical channel, wherein a channelization code used for the physical channel is not known at the time of the data recovery, the method comprising: receiving and processing a modulated signal to provide received samples (see figure 1); selecting a hypothesized channelization code (the common code) for processing the physical channel; processing the received samples with the hypothesized channelization code to generate partially processed symbols (see figure 5 and col. 5, line 66-col. 6, line 7); storing intermediate results representative of the partially processed symbols (see 20 of figure 4; col. 3, lines 14-17; and col. 5, lines 43-48); determining an actual channelization code used for the physical channel; and processing the intermediate results in accordance with the actual channelization code and the hypothesized channelization code to provide final results (see col. 6, lines 12-25).

Regarding claim 6, Dahlman discloses combining partially processed symbols from a plurality of demodulation elements (RAKE fingers) assigned to process the physical channel to generate the intermediate results (see col. 5, line 43-48).

Regarding claims 9-12, Dahlman discloses the hypothesized channelization code is a member of a set of channelization codes that may be used to generate the actual channelization code, and wherein the hypothesized channelization code has a length that is shorter or equal to that of the actual channelization code, wherein the hypothesized channelization code can be used to generate all channelization codes in the set, wherein the hypothesized channelization code is an orthogonal variable spreading factor (OVSF) code, wherein the hypothesized OVSF code has a largest spreading factor among the channelization codes in the set (see figure 3; col. 5, lines 44-46; and col. 6, lines 4-7).

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Regarding claims 13 and 14, Dahlman implicitly discloses spreading factor (level) ranging from four to 512 (see figure 3) (spreading factor 512 not shown in figure 3 but is the W-CDMA standard).

Regarding claims 18 and 19, claims 18 and 19 are method claims that have substantially all the limitations of the method claim 1, thus is subject to the same rejection.

Regarding claims 20 and 24, claims 20 and 20 and 24 are apparatus claims that have substantially all the limitations of the respective method claim 1, thus is subject to the same rejection.

Allowable Subject Matter

11. Claims 2, 4-5, and 7-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 3, 15-16, and 21-23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Gilhousen et al (5,103,459), Gilhousen et al (4,901,307), Ylitalo et al (6,215,814), Lipponen (6,580,747), and palenius et al(6,532,250) are all cited to show a method for processing a physical channel which are considered pertinent to the claimed invention.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D Nguyen whose telephone number is (703) 305-5133. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Olms can be reached on (703) 305-4703. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

BN
July 8, 2003



Brian Nguyen